

Serial No. : 10/824,872
Applicants : Frank Hochhaus, Jaro Kubik and Frank König
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The listing of the claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Please amend claims 1, 4, 10 and 20.

1. (Currently Amended) A device for automatically sensing the wear state of movable wheels or rollers in conveying systems, comprising:

a conveying system having movable wheels or rollers;

a measuring station through which ~~the~~each wheel or the roller runs, said measuring station arranged in a stationary fashion in the conveying path of the system, wherein diameter deviations of the wheel or of the roller from a predefined set point diameter can be sensed in a contactless fashion and signaled with said measuring station; and

wherein said measuring station comprises two photoelectric beam emitters that emit two parallel photoelectric barriersbeams which are spaced apart from one another, said photoelectric barriersbeams being directed tangentially with respect to the circumference of the wheel or roller and are spaced apart corresponding to the smallest permissible diameter of the wheel or of the roller, wherein the wheel or the roller is guided through said photoelectric barriersbeams in order to sense diameter deviations.

2. (Previously Cancelled)

3. (Previously Cancelled)

4. (Currently Amended) The device as claimed in claim 1, including a slotted plate having two slots which are arranged spaced apart, each of said slots guiding a defined lightphotoelectric beam from one of said photoelectric barriersbeam emitters onto one of two sensors located opposite said slotted plate, thereby improving accuracy of said measuring station.

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5. (Previously Amended) The device as claimed in claim 4, wherein said measuring station includes an evaluation unit which receives a measurement signal by the sensors, said evaluation unit evaluates the measurement signal and converts the measurement signal into a display signal.

6. (Previously Amended) The device as claimed in claim 5, including an initiator installed at a level of said measuring station, said initiator detecting the wheel or the roller in the measuring station.

7. (Original) The device as claimed in claim 6, including a reading device upstream of the measuring station, said reading device reading information which is carried along with the wheel or the roller.

8. (Previously Amended) The device as claimed in claim 1 adapted to sense the wear state of directing rollers or guide rollers on containers of baggage conveying systems.

9. (Previously Cancelled)

10. (Currently Amended) The device as claimed in claim 8, including a slotted plate having two slots which are arranged spaced apart, each of said slots guiding a defined lightphotoelectric beam from one of said photoelectric barriers~~beam emitters~~ onto one of two sensors located opposite said slotted plate, thereby improving accuracy of said measuring station.

11. (Original) The device as claimed in claim 10, wherein said measuring station includes an evaluation unit which receives a measurement signal by the sensors, said elevation unit evaluates the measurement signal and converts the measurement signal into a display signal.

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12. (Original) The device as claimed in claim 11, including an initiator installed at the level of said measuring station, said initiator detecting the wheel or the roller in the measuring station.

13. (Original) The device as claimed in claim 12, including a reading device upstream of the measuring station, said reading device reading information which is carried along with the wheel or the roller.

14. (Previously Amended) The device as claimed in claim 1, wherein said measuring station includes an evaluation unit which receives a measurement signal by the sensors, said evaluation unit evaluates the measurement signal and converts the measurement signal into a display signal.

15. (Previously Amended) The device as claimed in claim 14, including an initiator installed at a level of said measuring station, said initiator detecting the wheel or the roller in the measuring station.

16. (Original) The device as claimed in claim 15, including a reading device upstream of the measuring station, said reading device reading information which is carried along with the wheel or the roller.

17. (Previously Amended) The device as claimed in claim 1, including an initiator installed at a level of said measuring station, said initiator detecting the wheel or the roller in the measuring station.

18. (Original) The device as claimed in claim 17, including a reading device upstream of the measuring station, said reading device reading information which is carried along with the wheel or the roller.

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19. (Original) The device as claimed in claim 1, including a reading device upstream of the measuring station, said reading device reading information which is carried along with the wheel or the roller.

20. (Currently Amendment) A measuring method for automatically sensing the wear state of movable wheels or rollers in conveying systems, comprising:

providing two parallel photoelectric ~~barriersbeams~~ which are spaced apart from one another in a defined fashion;

interpreting a brief simultaneous interruption of both photoelectric ~~barriersbeams~~ when the wheel or the roller runs through said ~~barriersphotoelectric beams~~ as an indication of a wheel without wear or a roller without wear; and

interpreting the absence of a brief simultaneous interruption of both photoelectric ~~barriersbeams~~ when the wheel or the roller runs through the photoelectric ~~barriersbeams~~ as an indication of a worn wheel or a worn roller.

21. (Original) The method of claim 20 used to sense the wear state of directing rollers or guide rollers on containers of baggage conveying systems.